

GENERAL NOTES.

A New Silphium from Tennessee.—*SILPHIUM BRACHIATUM*. n. sp.—Stem 3 to 5 feet high, square, smooth and glaucous: leaves all opposite; lower short petioled, gradually attenuate from a dilated, truncate or subhastate base, slightly decurrent on the short ciliate petiole, roughened on the upper side, smooth on the lower, except the principal veins, which are slightly hirsute, irregularly and repandly dentate, 4 to 6 inches long, thin and glaucous green; uppermost sessile, ovate-lanceolate, ciliate on the margin: heads solitary on slender peduncles: involucre of about 15 or 16 foliaceous subsquarrose ovate scales: rays about eight, $\frac{3}{4}$ inch long: receptacle 1 inch high: akenes nearly orbicular, narrowly winged and slightly notched at the apex.

Collected July 14th, 1867, on the western slope of the Cumberland Mountains, one mile from the railroad tunnel at Cowan, Tennessee.

The species is very distinct and apparently plentiful in the locality, but has never been observed by me in any other part of the State. The only specimens now in collections are in the herbaria of Prof. J. W. Chickering and Prof. Lester F. Ward, of Washington, and Mr. Wm. M. Canby, at Wilmington, to which gentlemen I gave specimens at the meeting of the A. A. A. S. at Nashville in 1877, under the spurious name *S. perfoliatum*, var. One specimen I have recently sent to Dr. Gray, not finding it described in his recent volume on the Compositæ, and he expressed his regret that I had not sooner called his attention to the existence of this species.—A. GATTINGER, M. D., Nashville, Tenn.

Cynoglossum grande, Dougl.—This species has a long-peduncled inflorescence, terminating a leafy stem. The bracts of the panicle are seemingly all wanting; but they are really present in the shape of large leaves. By the coalescence of the branches to the stem and to each other, the false racemes are carried far away from the leaves to which they belong. That this is the case is seen best early in spring, when the leaves and flower-buds are closely together. At that time the lower leaves have buds or undeveloped branches in their axils, while four to six of the upper ones are perfectly empty. Directly above each empty axil, and not far away from it, there is a cluster of flower-buds; the lowest above the first empty leaf, the next cluster above the second of these leaves, and so on to the last leaf or bract. The first of the false racemes is often few-flowered or rudimentary, and then it remains low down on the peduncle, or among the leaves, sometimes nearly in the axil of its leaf. Two, or occasionally more, of the upper racemes are without bracts.—W. N. SUKSDORF, White Salmon, Wash. Ter.

Campanula and Specularia.—Referring to p. 149 and p. 176 of the GAZETTE, we offer a brief rejoinder to Mr. James's reply to a curt criticism, in which we deprecated the making of a needless synonym upon a misunderstanding of the facts. Mr. James called our *Campanula Americana* by the name of *Specularia Americana*, on the ground of its having "rotate, erect and sessile flowers," "while all the genuine Campanulas have bell-shaped, drooping and peci-

celled flowers." Upon which we remarked, in passing, that it would seem from this that the original Canterbury Bell is no longer a *Campanula*. Mr. James is unable to understand this, and the reader of his reply may say the same if he fails to notice that in repeating the criticised statement above quoted he has left out the word "drooping." Our point was that the flowers of *Campanula Medium* are erect in anthesis, and in that respect out of his character for *Campanula*. But, as we said before, a large number of *Campanulas* have erect flowers, some of which, as in *C. Medium*, are inclined or recurved on their peduncle or pedicel after anthesis, and some not. As "Wood's Botanist and Florist distinctly states that in Canterbury Bells the flowers are bell-shaped, it would therefore come under *Campanula* as I have stated it"—i. e. under the altered statement. So it would if it had the rotate corolla of *C. planiflora* or the subrotate corolla of some other species, or the quite erect peduncle or the sessile flowers of certain others.

But the gist of our criticism was that the flowers are not erect in *C. Americana*. Mr. James replies that in his experience "they are erect, at least in opposition to drooping." Next summer, when he looks up the plant in blossom, he will probably find that, while the capsule is erect, the flowers in anthesis are so placed that the flat face of the corolla is parallel with the vertical axis of inflorescence.

"Lastly, if there are plenty of species of *Campanula* with sessile and rotate flowers, there is all the more reason for the union of the two genera into one," Mr. James thinks. A third course might be taken, namely, to let them alone upon the characters which botanists have recognized.

Maine Notes.—A forty-mile stage ride through the more thinly settled portion of northwestern Maine, during the past summer, exhibited one botanical phenomenon of great interest and beauty.

As we were riding along the banks of the Canabassett river, a noisy, little tributary of the Kennebec, our driver hearing us speak of different flowers, said, "Just wait, and in a few miles I will show you the biggest flower garden that ever you saw."

Before long we came to a tract of some 4,000 acres, over which lumbering operations had been carried on some years ago, leaving a tangled mass of limbs and underbrush.

On June 8th, of the present year, a fire broke out and swept over this entire tract, lasting for two weeks, and burning with such fury that it was almost impossible for the stage to travel along the road.

The driver said that the new vegetation began to start in three weeks after the fire, and as we drove along, August 14th, our road passing through this tract for four miles, the whole region as far as the eye could reach, over hill and valley, ridge and interval was one mass of color from the "fireweed," *Epilobium angustifolium*. It looked, as one of the party said, as if the earth were covered four or five feet deep with a fall of pink snow. The sight was one never to be forgotten.

Now comes the query, "Where did the plants come from?" The region

had been thoroughly burned over two months before, so that but little other vegetation had survived; the seeds are very light and feathery, and the driver had noticed none in the previous years.

Several albino clumps were noticed, where a dozen stalks would have a pure white inflorescence, but with no other peculiarity to be detected.

When at Linn Pond, twenty miles farther in the woods, were seen a number of spruces, *Abies nigra*, from which, at twenty feet or more from the ground, one branch had gotten the better of all the others, and making a symmetrical curve upwards, with a diameter of several inches, was running up parallel with the main stem, although the terminal bud did not seem to have been injured.

J. W. CHICKERING, JR., *Washington, D. C.*

Wild Fruits in Boston Markets.—The fruit of *Prunus serotina* is sold in the Boston markets to a considerable extent in seasons when it is plenty. Germans and Italians make excursions from the city, and pick the fruit from trees in copses and pastures. Wild cherries were not abundant this year, and the amount sold probably fell considerably short of one hundred bushels. They sold for \$3.00 per bushel. The cherries are used for flavoring rum and brandy, being added to the liquor whole.

The grapes of *Vitis Labrusca* are largely used for jellies. This year they were scarce, and they sold for two and three cents per pound. At one time they brought more in the market than Concord. Probably about two hundred bushels were handled this year.

The sweet little berries of *Physalis pubescens*, L., with their calyxes intact, are selling at present (Oct. 22), for \$1.00 per peck. They are known in market as "strawberry tomatoes." They are grown in small gardens in this vicinity. The berries are made into preserves. "Strawberry tomato" is a name which properly belongs to the ornamental *Physalis Alkekengi*. I believe, as a boy, I knew the *Physalis* fruit as "ground cherry."

The fruit of *Berberis vulgaris* is one of the commonest of small fruits in Faneuil Hall market. On nearly all the hills of Eastern Massachusetts the barberry has run wild, and the berries are in most places harvested regularly. The pretty berries make attractive garnishes, and they are highly prized for pickles. They bring about fifteen cents per quart.—L. H. BAILEY, Jr.

Oospores of Cystopus in Capsella.—Mr. Horace Stafford first, and afterward several other members of the same class in Purdue University, while studying *Cystopus candidus* lately, found abundant oogonia and antheridia in the upper parts of the stem and floral organs of *Capsella*. The oogonia were in all stages of development, many of them containing mature oospores. Dr. Farrow says (BOT. GAZ., VIII., 335): "I have not seen oospores in these plants [*Capsella* and *Lepidium*] in this country," and I am not aware that any one else has seen them before.—C. R. B.

The same results were obtained at nearly the same time in the botanical laboratory of Wabash College.—J. M. C.

Carya myristicæ formis, Nutt., occurs in the Red River Valley as far as the Arkansas boundary, and probably considerably farther up the river. North of the Red river it extends into the foot hills of the Palæozoic region, and is found in abundance on eminences four or five hundred feet above the valleys. It is known among the people of that region as *Blasted Pecan*. The nuts in drying split open at one end (usually), and are easily opened by means of the blade of a pocket knife placed in the cleft. The kernel, though small, is of excellent flavor.

Manual of the Mosses of N. Am.¹—In the Sept. number of the BOTANICAL GAZETTE, Mr. Eug. A. Rau has published for species of mosses an enumeration of localities which have not been mentioned in the Manual of the Mosses of North America. A detailed enumeration of the localities cited by collectors would have greatly increased the bulk of the book, without adequate advantage for the student. The same may be said of the numerous varieties which have forcibly been omitted.

The same bryologist adds a list of species which, he says, are omitted from the work, although of sufficient importance. The list is as follows: *Hypnum thelistegum*, C. M., Florida. Aust. Musci. App. Suppl. N. 505, *H. homalostegium* C. M., Alabama, Mohr. *H. occidentale*, S. & L., Oregon, Hall., *Trichostomum macrostegium*, Sull., Alabama, Mohr., *Dicranum Richardsoni*, Hook. Greenland, *Dicranella Canadensis*, Mitt. British America, Macoun., *Dicranum arcticum*, Schp, Greenland, Labrador, *Tetraplodon mnioides* vars. *Adamsianus* and *carifolius*, Arctic regions. Of the above species *Hypnum homalostegium* and *Trichostomum macrostegium* have not been found within the limits of North America. According to Dr. Mohr's information the specimens communicated formerly as found in Alabama are Mexican specimens collected by himself in Mexico, and casually mixed with those found around Mobile. *Dicranum Richardsoni*, iHook, is a synonym of *Cynodontium virens*, Schp. *Dicranella Canadensis*, meaning *Cynodontium Canadense*, Mitt. is *Dichodontium Canadense*, of the Manual. *Tetraplodon mnioides* var. *carifolius* is of no account as a variety. It is included in the cited synonym *Splachnum urceolatum*. *Dicranum arcticum*, considered by Bruch and Wilson as a variety of *D. Starkii*, might have been mentioned though not described in the first edition of the Synopsis of Schimper, and *Hypnum thelistegum*, C. M. (not *thelistegium*) is of Austro-American type, and no specimen of it could be obtained. Its determination is still to be ascertained. I owe to Mr. J. Donnell Smith, to whom the discovery of the moss is credited, a set of his specimens found in Florida; but the species is not represented in the lot. The only species, therefore, really forgotten in the manual, and that by an unaccountable oversight, is *Hypnum occidentale*, Sull. & Lesq, and this, under about nine hundred species described, do not indicate carelessness in the preparation of the work, the species being one originally determined by myself.—LEO LESQUEREUX, Columbus, O., Oct. 7th, 1884.

¹This note was crowded out of the last No., for which it was prepared.

Dioclea Boykinii, Gray, was found in full bloom two years ago, in Drew county, Arkansas, the last of July. The legumes were quite immature, and we concluded this was its usual time of flowering. From observations the last season we conclude that it sometimes begins flowering as early as the middle of June. We would say from June to August is the period of this species. We were unable to visit the Drew county locality this season, but the plant was found in abundance as far north in Arkansas as the line of the Memphis & Little Rock R. R., on the border of Grand Prairie near Devall's Bluff. The flowers had nearly all fallen by the middle of July (only a few at the ends of the racemes being left), and many of the pods mature. The plant often climbs twenty feet high, and the leaves sometimes are eight inches in diameter, and broader than long. The racemes are occasionally seven feet long, and bear numerous blossoms, but few of which produce legumes.

Entirely sterile racemes are abundant, and but few pods are developed on the fertile ones. We did not notice a single raceme where all the flowers were fertile. The pods usually contain but few peas, which are separated from each other by a membranous partition, and are about two-thirds as long as field peas. The taste is somewhat like that of a garden pea. Occasionally pods contain as many as six peas, and are three inches long, and five-eighths broad.

Cows are exceedingly fond of the foliage and pods, and the vines are stripped wherever in reach, requiring the botanist to pull his specimens from the tree tops in exposed places. The pods when they drop are devoured greedily by swine. This species was seen about Little Rock, north of the Arkansas river, and probably occurs throughout the east and south part of the State.

F. L. HARVEY, Fayetteville, Ark.

EDITORIAL NOTES.

FOOTE'S LEISURE HOUR for October opens with a poetical extract dedicated to the Botanical Club.

DR. E. P. N. FOURNIER, best known for his work on the Mexican flora, died in Paris lately, at the age of fifty.

DR. W. G. FARLOW has been granted a year's vacation, and will soon go to the Southwest to recuperate his health.

BULLETIN No. 4, of the same Division, is devoted to a continuation of an investigation of the composition of American wheat and corn.

SCIENCE RECORD has suspended publication with the completion of its second volume. It was an excellent journal, and we regret its loss.

THE TITLE of Dr. Sturtevant's paper before the American Association was the "Influence of Insolation upon Vegetation," and not *insulation*, as given in our last issue. It dealt with the relation of certain solar influences to rapidity of growth.